

CLAIMS

- Sub A1
1. Process for drying wet F32, which comprises placing a stream of the said F32 in continuous contact with a feed stock of a composition comprising a molecular sieve chosen from a 3A, 4A or 5A type sieve, at a temperature of between 5 and 78°C, preferably at room temperature, and at a pressure of between 0.6 and 25 atm, preferably between 0.8 and 17 atm.
2. Process according to Claim 1, characterized in that the stream of F32 to be dried is a stream of gas, and the pressure is between 0.6 and 10 atm, preferably between 0.8 and 5 atm.
3. Process according to either of Claims 1 and 2, characterized in that the stream of F32 comprises a water content of less than 10,000 ppm, preferably less than 6000 ppm.
4. Process according to one of Claims 1 to 3, characterized in that the wet F32 is placed in contact with the sieve feed stock in a column located downstream of a plant for manufacturing F32.
5. Process according to one of Claims 1 to 4, characterized in that the molecular sieve used is a 3 A type sieve.
6. Process according to one of Claims 1 to 5, characterized in that the sieve feed stock is regenerated by the process which consists in heating

the said feed stock to a temperature of between 120°C and 300°C, preferably between 150°C and 250°C, at an absolute pressure of less than 100 mm Hg, preferably less than 80 mm Hg.

5 7. Process according to one of Claims 1 to 5, characterized in that the sieve feed stock is regenerated by the process which consists in passing a stream of an inert gas, such as helium, over the said feed stock, at a pressure in the region of atmospheric
10 pressure, by working firstly:

(i) at a temperature at least between 70°C and 170°C, preferably between 80°C and 165°C, for the time required to remove at least 80%, preferably at least 90%, of the initial amount of F32 adsorbed in the
15 feed stock, and then

(ii) at another temperature of between 180°C and 300°C, preferably between 190°C and 250°C, for the time required to remove at least 90%, preferably at least 95%, of the initial amount of water adsorbed in
20 the feed stock.

8. Process according to Claim 7, characterized in that step (i) is carried out by first working:

- (i1) at a first temperature of between 70°C and 130°C, preferably between 100°C and 125°C, for the
25 time required to remove at least 60% (preferably at least 70%) of the initial amount of F32 adsorbed, and then

- (i2) at a second temperature of between 130°C and 170°C, preferably between 145°C and 165°C, for the time required to remove at least 80%, preferably at least 90%, of the initial amount of F32 adsorbed.

9. Process according to one of Claims 6 to 8, characterized in that the regeneration treatment for the sieve feed stock is carried out in the same column as that defined in Claim 4.

10. Process according to Claim 9, characterized in that it is carried out in two columns in parallel, one running in the phase for drying wet F32, the other running in the phase for regenerating a saturated molecular sieve feed stock.

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A2

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